

What is claimed is:

1. A field emission device comprising:
 - an anode plate, an anode electrode and a phosphor layer are formed inside of the anode plate;
 - 5 a cathode plate, a plurality of electron emission sources for emitting electrons which correspond to the phosphor layer and a gate electrode having gate holes through which the electrons pass are formed inside of the cathode plate;
 - a mesh grid which is provided between the cathode plate and the anode plate and in which a plurality of electron-controlling holes are formed in a region
 - 10 corresponding to the gate holes;
 - a spacer which supports the mesh grid between the anode plate and the mesh grid; and
 - insulating layers which are formed on both sides of the mesh grid and have windows through which the plurality of electron-controlling holes are exposed and
 - 15 which correspond to a region where the plurality of electron-controlling holes are formed.
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2. The field emission device of claim 1, wherein the mesh grid has a thickness smaller than that of each of the insulating layers.
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3. The field emission device of claim 1, wherein the number of the electron-controlling holes formed inside of one window is larger than the number of the gate holes corresponding to the same window.
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4. The field emission device of claim 2, wherein the number of the electron-controlling holes formed inside of one window is larger than the number of the gate holes corresponding to the same window.
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5. The field emission device of claim 1, wherein the mesh grid is spaced apart from the anode plate and the cathode plate by a predetermined gap.